

The Rock Cycle

Rock

- Naturally occurs
- Solid
- Mixture of one or more minerals
 - Early Uses: weapons and tools
 - Modern Uses: roads, buildings and monuments





Processes that shape the Earth
These processes help in the rock cycle

1. Weathering

Wind, ice and heat break down rock into pieces (sediment)

2. Erosion

Wind, water, ice or gravity move the sediment from one place to another.

3. Deposition

The sediment is deposited in a new place.

4. Heat and Pressure

Underground the rock could melt or be squeezed into new rock.

5.Uplift

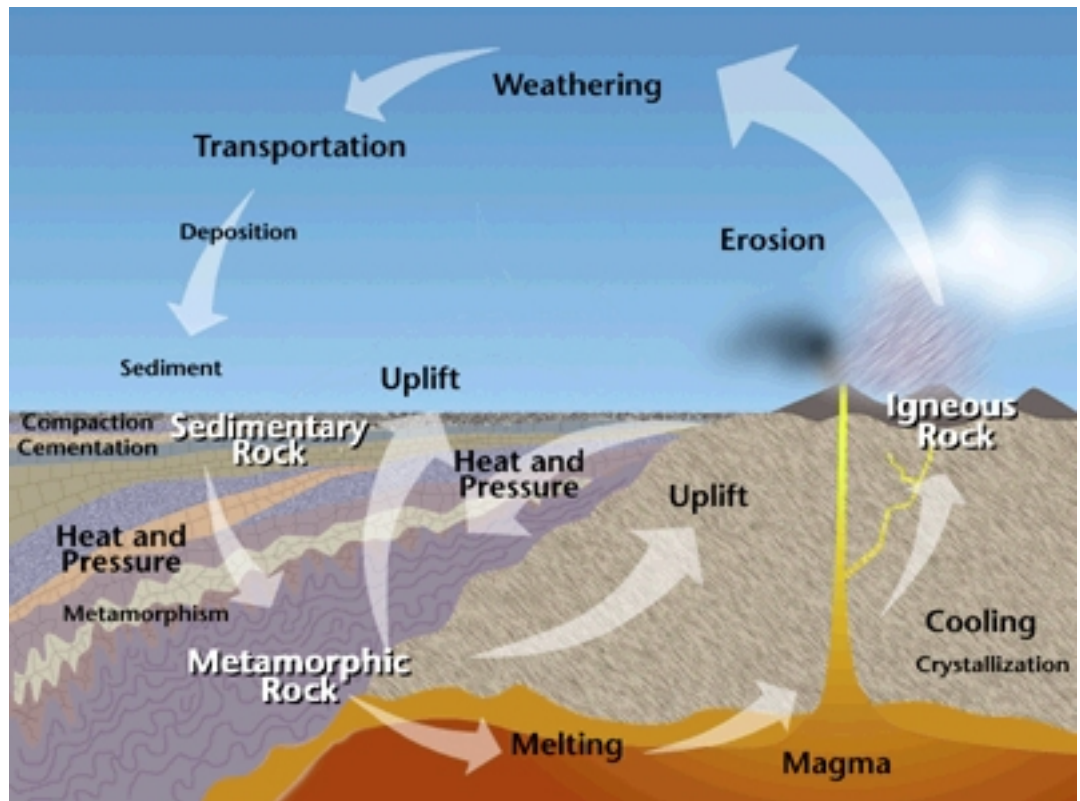
Movement within the Earth that causes underground rock to move to the Earth's surface.

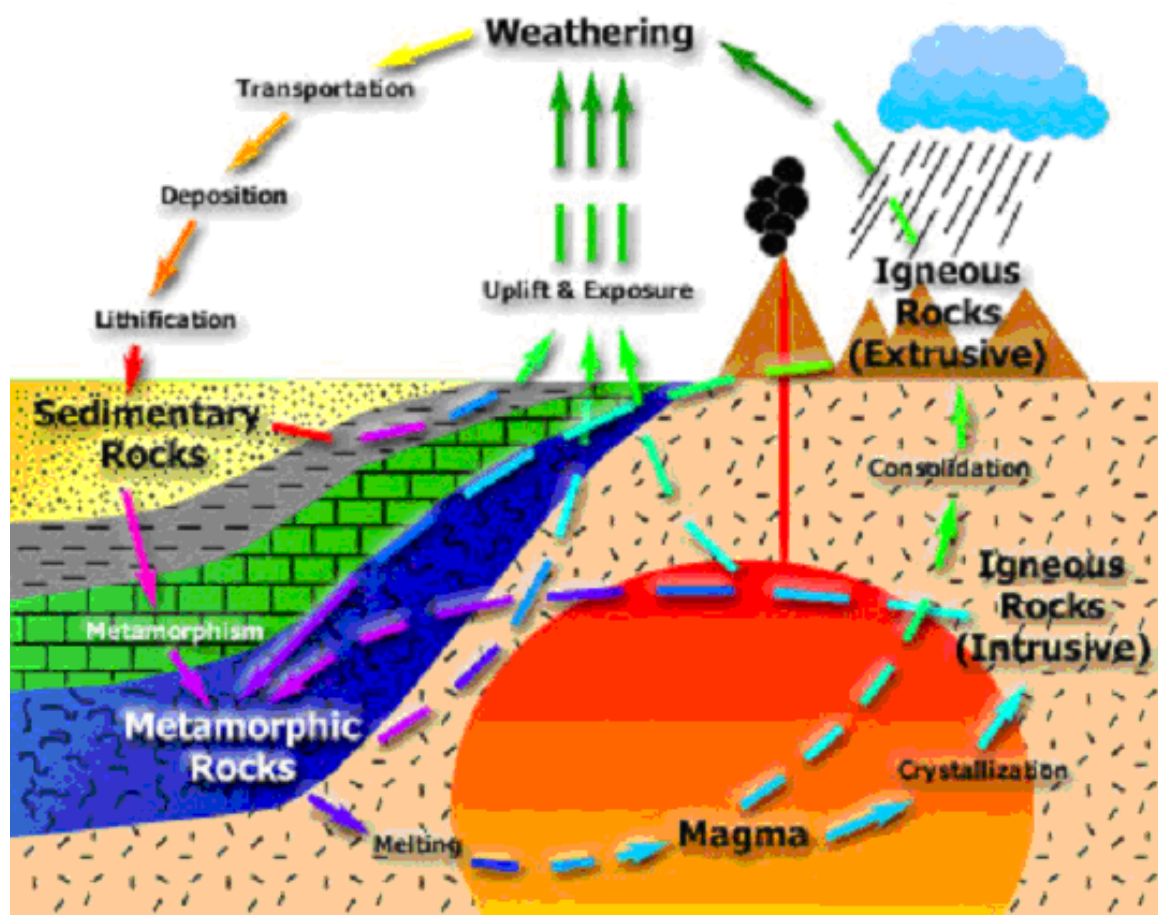
6. Gravity

Rock Cycle

- The continuing process by which old rock becomes new rock
- Takes millions to tens of millions of years

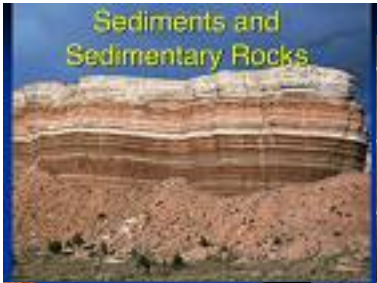
Steps of the Rock Cycle





Three Types of Rock

1. Sedimentary- formed by sediment compacted Together



2. Metamorphic- Formed when underground heat and pressure squeeze sedimentary rock to change it.



3. Igneous Rock- Formed when magma melts metamorphic rock and then cools and solidifies



Igneous Rock is the uplifted to the surfaced, where it is weathered, eroded and deposited to form sedimentary rock, it then sinks and gets hit with heat and pressure, to form metamorphic rock, which melts with magma, cools, solidifies and starts the cycle again.

The Cycle is not exclusive to the steps. Not all rocks will follow it exactly. Some will jump ahead, go back or stay where they are at.

Rock Classification

Rocks are grouped or classified based on two characteristics.

1. Composition- the minerals or materials of a rock

Example

Limestone: 95% calcite and 5% aragonite



Texture- size shape or position of the rocks grains

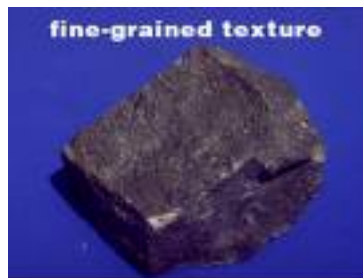
- how it feels
- gives clues to how it was formed

Examples

Fine Grained

- smooth
- small grains

Igneous rocks that forms quickly by rising to the surface and cooling faster



Course Grained

- rough
- large grains
- Igneous rocks that form slow by rising and cooling more slowly

